Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1-5. (Canceled)

6-11. (Canceled)

12. (Currently amended) A method for sensitizing a proliferating cell to a DNA base-damaging agent by inhibiting growth arrest and DNA damage-inducible gene 45 (GADD45) polypeptide activity comprising administering a composition capable of specifically binding to the GADD45 polypeptide in an amount sufficient to inhibit ~~or decrease~~ GADD45 polypeptide specific binding to the cell division cycle 2 (Cdc2) polypeptide.

13. (Original) The method of claim 12, wherein the composition is an antibody specifically reactive with the GADD45 polypeptide.

14. (Original) The method of claim 13, wherein the antibody is specifically reactive with a domain of the GADD45 polypeptide comprising a sequence set forth by amino acid residues 61 to 84 of SEQ ID NO:2.

15. (Original) The method of claim 12, wherein the proliferating cell is a cancer cell.

16. (Original) The method of claim 15, wherein the DNA base-damaging agent is UV radiation.

17. (Original) The method of claim 12, wherein the DNA base-damaging agent is a chemotherapeutic agent.

18. (Original) The method of claim 17, wherein the chemotherapeutic agent is a base-damaging alkylating agent.

19-28. (Canceled)

29. (Currently amended) A method for sensitizing a proliferating cell to a DNA base-damaging agent by inhibiting growth arrest and DNA damage-inducible gene 45 (GADD45) polypeptide activity comprising administering a polypeptide ~~of claim 19~~ consisting essentially of an amino acid sequence selected from a group of sequences from a wild type GADD45 (SEQ ID NO:2 having a DEDDDR (SEQ ID NO:5) subsequence having amino and carboxy ends, wherein the amino acids of the sequences are in their native order, are linear peptides, and further consist of the DEDDDR (SEQ ID NO:5) subsequence or of DEDDDR (SEQ ID NO:5) and of about 20 or fewer amino acids of SEQ ID NO:2 which naturally flank the DEDDDR (SEQ ID NO:5) subsequence at either or both the amino and carboxy ends, and are in their native order, and wherein said polypeptide inhibits GADD45 activity by at least 10%.

30. (Currently amended) A method for sensitizing a proliferating cell to a DNA base-damaging agent by inhibiting growth arrest and DNA damage-inducible gene 45 (GADD45) polypeptide activity comprising administering a first polypeptide ~~of claim 22~~ that has at least 95% sequence identity to a second polypeptide and inhibits GADD45 activity by at least 10%, wherein the second polypeptide consists essentially of an amino acid sequence selected from a group of sequences from a wild type GADD45 (SEQ ID NO:2 having a DEDDDR (SEQ ID NO:5) subsequence having amino and carboxy ends, wherein the amino acids of the sequences are in their native order, are linear peptides, and further consist of the DEDDDR (SEQ ID NO:5) subsequence or of DEDDDR (SEQ ID NO:5) and of about 20 or fewer amino acids of SEQ ID NO:2 which naturally flank the DEDDDR (SEQ ID NO:5) subsequence at either or both the amino and carboxy ends, and are in their native order, and wherein said second polypeptide inhibits GADD45 activity by at least 10%.

31. (Currently amended) A method for sensitizing a proliferating cell to a DNA base-damaging agent by inhibiting growth arrest and DNA damage-inducible gene 45 (GADD45) polypeptide activity comprising administering ~~a~~ an antibody which specifically binds to the GADD45 polypeptide, wherein said binding inhibits ~~or decreases~~ GADD45 polypeptide activity by at least 10%.

32. (Original) The method of claim 31, wherein the antibody is specifically reactive with a domain of the GADD45 polypeptide comprising a sequence set forth by amino acid residues 61 to 87 of SEQ ID NO:2.

33. (Currently amended) The method of claim 32, wherein the antibody specifically binds to an epitope comprising some or all of an amino acid sequence DEDDDR (SEQ ID NO:5).

34. (Original) The method of claim 31, wherein the proliferating cell is a cancer cell.

35. (Original) The method of claim 31, wherein the DNA base-damaging agent is UV radiation.

36. (Original) The method of claim 31, wherein the DNA base-damaging agent is a chemotherapeutic agent.

37. (Original) The method of claim 36, wherein the chemotherapeutic agent is a base-damaging alkylating agent.